Atención Primaria

SCIENTIFIC ARTICLE

Satisfaction with the healthcare provided of women who had undergone a mastectomy

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KEYWORDS
Women;
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Satisfaction;
Health care providing

Abstract

Introduction: Breast cancer is the most common form of cancer among women worldwide and, therefore, deserves the highest attention and assistance from medical services. Considering patients' satisfaction as an indication of healthcare quality, women who have undergone a mastectomy will assess the medical care received. This assessment will be based on what is expected from that medical care and on the expected improvement of her health condition. .

Objective: To determine the level of satisfaction of women who have undergone a mastectomy with the medical care provided by nurses, doctors and by the way hospital services are organized.

Design: A descriptive and cross-sectional study, developed in Portugal.

Participants: A non-probabilistic sample formed by 153 women who underwent a mastectomy with an average age of 55, married (67.3%), unemployed (56.2%), living in a rural area (71.2%) and living on minimum wage (54.9%).

Measurement instrument: European Organization for Research and Treatment of Cancer (EORTC) IN-PATSAT32 questionnaire.

Results: 113 (73.85%) of the 153 women are satisfied with the medical care provided and 40 (26.14%) of them show their lack of satisfaction.

A highly significant percentage of women (49.01%) feel fairly satisfied with the medical care provided by nurses and with the way services are organized (37.9). On the other hand (37.9%) show their dissatisfaction towards doctors.

The family network proved to be a predictor of the satisfaction with doctors ($\beta = 0.163$; $P = .044$) and the period of hospitalization predicts the satisfaction with the organization ($\beta = 0.171$; $P = .011$). Both predictors will be useful to explain the 3% variability in patients' satisfaction.

Conclusions: Monitoring the satisfaction with the medical care received is a fundamental strategy to promote the well-being of women who underwent a mastectomy.

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Introduction

Breast cancer is the most common type of cancer in women worldwide, not only in developed countries, but also in developing countries. Its incidence has been increasing in developed countries because of a higher life expectancy, the urbanization and the adoption of western lifestyles.[1] Looking at what happened in Portugal in 2014, we could observe the death of 1660 women caused by breast cancer.[2]

The high incidence of breast cancer, and consequently the existence of a large number of women who had to undergo a mastectomy, makes the quality of health care and the satisfaction with the medical assistance provided by the healthcare services even more important. This factor is seen as a very important point in those women's rehabilitation and the role played by nursing is emphasized in this context because nurses are the elements of the medical staff that will spend more time with those patients.[3]

Considering patients' satisfaction as an indicator of the quality of health care, the patient will assess the care which was provided based on the factors that are expected from health care service itself and on how it will help improve his health condition.[4]

On this basis and assuming that the objective of all health care provided to women who had undergone a mastectomy is its quality, all the fears and taboos that surround mastectomy should be demystified, all the doubts should be clarified and, through a therapeutic relationship based on helping the patients, the recovery of a positive self-image should be a priority.

Information and clarification about the disease, its treatment and the removal of the breast should be made during the preoperative phase, especially by the nursing, team since mastectomy triggers a maelstrom of feelings that can lead to anguish, restlessness and fear.[5]

So the indicators of the success achieved regarding the assistance provided to mastectomized women should include not only basic and specific medical treatment, but also treatments and care that will help them adjust to their new body image, become satisfied with the way they will develop family and social relationships, among other situations.[6]

There are no "key moments" in which the information about breast cancer health care should be provided. Those moments have to be developed according to the energy, the motivation, the interest to listen to this kind of information and the singularity that each woman represents.

The whole health care team will have to agree with the information that will be given. At this point the crucial role played by nurses in this process and the sharing of information hospital/Primary Healthcare center should be stressed out.[7]

Health care is therefore seen as an evolution in treatment, since medical assistance should focus on the women's needs, allowing them to receive a holistic treatment which will promote the restoring of their global heath as bio psychosocial and spiritual beings.[8]

In this context, the problem defined for this study has to do with the confirmation that the health care that should be provided to mastectomized women is technically and skillfully demanding. This care is essential to help these women adapt to a new situation and deal with the changes that had happened in their body image and that can trigger a full myriad of feelings and emotions.

Therefore, the assessment of the satisfaction of women who had gone through a mastectomy has had a gradual importance regarding their quality of life and became a factor that all health care workers should keep in mind.

In conclusion, the following investigative general question was asked: How satisfied are women who had undergone a mastectomy with health care provided by nurses, doctors and hospital health services?

The will to know more about the reality of such a complex human phenomenon as is the experience of overcoming cancer, and, in consequence, mastectomy and all its multiple implications (namely the attention paid to women during their hospitalization) provided support to the objective of this study: to determine the level of satisfaction of women who had undergone a mastectomy with health care provided by nurses, doctors and how well hospital health services were organized.

Material and methods

To conduct an investigation on how satisfied women who had gone through a mastectomy are with the care provided by nurses, doctors and with the way hospital services are organized is justified since the attention paid by these professional to women's comfort has consequences in their physical, psychological and social rehabilitation.

Design

Descriptive and correlational study. Data were collected through a cross-sectional study in the Portuguese Statistic Territorial Unit-NUTS 1.

Participants

The sample was formed by 153 mastectomized women. A non-probability sampling technique (also known as snowball sampling or chain sampling techniques[9]) was used, so we asked the first women from our sample to point out other women who shared the same characteristics.

The following inclusion criteria were established: to be between 20 and 90 years old and to have undergone a mastectomy, no matter where the surgery had been performed, as well as the exclusion criterion: women who showed any kind of incapacity that would prevent them from understanding or interpreting the questionnaire.

The age of mastectomized women ranged between 29 and 86, with an average age of 54.95 (SD= 13.46), the most representative age-group was formed by women who were 60 year old or above (34.0%). The majority of those women were married or unmarried partners (67.3%), living in a rural area (71.2%), being part of a structured functional family (79%) and who had low social support (47.1%). This is a sample in which 67.3% had graduated from elementary school, 56.2% are unemployed and 54.9% of them were earning less than 485 € a month, the equivalent of Portugal minimum wage. The time spent in hospitalization allowed us to form two groups: the first corresponded to a hospital-

ization period inferior to 2 weeks and the second to a period of 2 weeks or more. Statistics regarding the hospitalization period show that the minimum period of hospitalization was zero weeks and that the maximum was 4.0 weeks, which corresponds to a 1,52 average week period (SD= 73).

Formal and ethical procedures

The women's participation was voluntary and the data collection instruments were completed by the participants helped by the investigators whenever their help was needed. The ethical principles upon which the Ethical Standards in Research are based, namely the respect for human dignity and the principles of justice and charity were taken into account. The confidentiality and the anonymity regarding the publication of the results were guaranteed.[10]

We were granted the Escola Superior de Saúde de Viseu Ethical Committee permission and obtained the participant's voluntary consent.

Measurement instruments

The research protocol allowed the collection of relevant information that would help characterize mastectomized women regarding their personal, social, family and clinical data and also allowed to assess the women's satisfaction with the health care they were provided.

The data collection was based on a socio-demographic background questionnaire, the APGAR Family Index,[11] Lubben Social Network Scale[12] and the European Organization for Research and Treatment of Cancer Questionnaire (EORTC IN-PATSAT32).[13]

To assess the family functionality, we used the Apgar Family Index[11] which determines the existence of family dysfunction and the level of existing dysfunctional behaviours, through five questions to which participants could answer in three different ways: Almost always; Some of the time; Hardly ever.

As far as the Apgar Family Index is concerned in this study, the determination of the overall Cronbach's Alpha coefficient shows a good internal consistency (0.831). For the remaining items, we can also notice a good internal consistency ranging between 0.806 for item D and 0.808 for item C. The percentage of variance, explained through the determination of the coefficient of determination (r^2), shows that item E is the one which obtained the highest percentage (45.4%).

The Lubben Social Network Scale[12] assesses the support perceived and received by family and friends. In the current study, the overall Cronbach' Alpha Coefficient value was 0.901 which shows a very good internal consistency and good consistency values in the subscales "Family" (0.891) and "Friends" (0.852).

To assess the satisfaction of the women who went through a mastectomy, we use the European Organization for Research and Treatment of Cancer (EORTC) IN-PATSAT32 questionnaire, translated into Portuguese and which evaluation measures were adjusted and validated for the Portuguese population. It's a 32-item instrument developed to assess the patients' satisfaction with the care received during their hospitalization. The cancer patients 'assessment (of health care provided) to which this scale was especially designed is its main advantage. The questionnaire, in its three dimensions, assesses the *"satisfaction with health care provided by the doctors"* concerning: their interpersonal skills (items 4-6); the information they were able to give to their patients (items 7-9); their availability (items 10-11).

It also assesses the *"Satisfaction with the health care provided by nurses"*: their interpersonal skills (items 15-17); their technical skills (items 12-14); the information they were able to give to their patients (items 18-20); their availability (items 21-22). Another aspect which is assessed is "The satisfaction with organizational aspects and services" in the following contexts: the kindness and help showed by other members of the hospital staff and the information they were able to give (items 24-26); the time they had to wait for their treatment and to know the result of their medical exams (items 27-28); accessibility (items 29-30); the way information was shared among health workers (item 23) and the cleanness/hygiene of the facilities (item 31).

It also shows a final item (item 32) in which an overall assessment of the quality of the care provided is asked. Each one of the 32 items is presented in a five point Likert-like Scale: "weak, normal, good, very good and excellent". The answer is then converted into a one to five point score. There, the highest score corresponds to higher levels of satisfaction. Although it is a quite recent evaluation instrument, EORTC IN-PATSAT32 has already showed that it is strong enough to be used in scientific research. Statistic analysis revealed an excellent internal consistency of the scale as a whole and of each one of its dimensions, as well as a strong convergent validity when it is compared to other existing instruments. It has also showed a high fidelity, with correlations above 0.70 for the different subscales, as well as for the scale as a whole.[13]

The determination of Cronbach's Alpha Coefficient in the current sample show us that there is a very good internal consistency for all the items, ranging between 0.960 for item 32, 0.961 for items 4, 5, 6, 13, 20, 23, 25 and 28, and 0.963 for items 1 and 29. Calculating the reliability index through Split-Half Reliability Method, we could see that the value is also very good for both halves. The percentage of variance explained through the determination coefficient (r^2) shows evidence that item 25 is the one with a higher variability (58.8%) (Table 1).

It can be confirmed that the alpha value is quite good in all the subscales. Regarding the bipartition coefficients, both parts show a very good internal consistency.

As for the parameters for validity and consistency of the subscales "During hospitalization, assessment of the doctors", the results suggest a very good internal consistency with alpha values ranging from 0.949 (items 5 and 6), and 0.953 (item 1). In comparison, in the subscale "During hospitalization, assessment given of the nurses", the coefficients also suggest a very good internal consistency ranging from 0.951 (items 16 and 22) and 0.955 (items 12 and 13). In subscale "During hospitalization, assessment of the hospital organization and services", the alpha value suggests a good internal consistency, ranging from 0.885 for item 25 and 0.898 for item 29.

Alpha value was 0.960 for item 32 (Table 2).

Table 1 Statistics and Cronbach's alpha to the European Organization for Research and Treatment of Cancer (EORTC) IN-PATSAT32 questionnaire

Item	Items content	Mean	Standard deviation	Evaluation		
				r item/total	r^2	α
1	Knowledge and experience regarding your disease?	3.55	0.943	0.523	0.274	0.963
2	Treatment and monitoring provided?	3.54	0.907	0.597	0.356	0.962
3	Attention paid to your physical problems?	3.48	0.901	0.611	0.373	0.962
4	Availability to listen to your concerns?	3.19	0.892	0.742	0.551	0.961
5	Interest they have shown in you and in your case?	3.40	0.834	0.719	0.517	0.961
6	Comfort and support they gave you?	3.37	0.899	0.725	0.526	0.961
7	Information they gave you about your disease?	3.38	0.823	0.630	0.397	0.962
8	Information they gave you about your medical exams?	3.26	0.890	0.692	0.479	0.962
9	Information you were given about your treatments?	3.42	0.860	0.681	0.464	0.962
10	Visits and consultations frequency?	3.32	0.882	0.614	0.377	0.962
11	The amount of time spent with you during the different visits and consultations?	3.26	0.957	0.653	0.426	0.962
12	The way they have assessed your vital signs (temperature, blood pressure...)?	3.81	0.789	0.707	0.500	0.962
13	The way they have provided health care (medication administration, wound dressing...)?	3.89	0.834	0.721	0.520	0.961
14	Attention they paid to your physical comfort?	3.93	0.917	0.659	0.434	0.962
15	Interest they have shown in you and in your case?	3.93	0.792	0.648	0.420	0.962
16	Comfort and support they gave you?	3.93	0.846	0.673	0.453	0.962
17	Human qualities (respect, sensibility, patience...)?	3.98	0.812	0.663	0.440	0.962
18	Information they gave you about your medical exams?	3.56	0.949	0.661	0.437	0.962
19	Information they gave you about the way you would have to perform self-treatment?	3.89	0.829	0.648	0.420	0.962
20	Information you were given about the treatments?	3.77	0.828	0.715	0.511	0.961
21	How fast were your calls answered?	3.75	0.953	0.677	0.458	0.962
22	The amount of time spent with you?	3.78	0.930	0.675	0.456	0.962
23	Exchange of information among the health workers?	3.48	0.799	0.723	0.523	0.961
24	Kindness and support shown by technicians and assistive personnel?	3.71	0.853	0.674	0.454	0.962
25	Information provided when you were admitted to the hospital?	3.60	0.825	0.767	0.588	0.961
26	Information provided at the time of your discharge from the hospital?	3.65	0.759	0.696	0.484	0.962
27	Amount of time you had to wait to get the result of your medical exams?	3.25	0.903	0.685	0.469	0.962
28	How fast were your exams and treatments performed?	3.43	0.891	0.724	0.524	0.961
29	How easy was it to get to the hospital? (means of transport, parking lots...)	2.93	1.031	0.524	0.275	0.963
30	How easy was it to locate the different hospital services?	3.20	0.887	0.582	0.339	0.962
31	Environment in the different hospital spaces (cleanness, space, noise...)?	3.31	0.888	0.638	0.407	0.962
32	Overall, how would you classify the health care provided during your stay in the hospital?	3.25	0.819	0.642	0.524	0.960
Split-half Coefficient				First half = 0.943 Second half = 0.942		
Overall Cronbach's alpha Coefficient				0.963		

Table 2 Statistics and Cronbach's alpha values for each subscale of the European Organization for Research and Treatment of Cancer (Eortc) In-Patsat32 questionnaire

Item	EORTC Questionnaire Subclase	Mean	Standard deviation	r item/ total	r^2	α
During hospitalization, assessment of the doctors						
1	Knowledge and experience regarding your disease?	3.55	0.943	0.746	0.557	0.953
2	Treatment and monitoring provided?	3.54	0.907	0.823	0.677	0.950
3	Attention paid to your physical problems?	3.48	0.901	0.770	0.593	0.952
4	Availability to listen to your concerns?	3.19	0.892	0.796	0.634	0.951
5	Interest they have shown in you and in your case?	3.40	0.834	0.856	0.733	0.949
6	Comfort and support they gave you?	3.37	0.899	0.842	0.709	0.949
7	Information they gave you about your disease?	3.38	0.823	0.752	0.566	0.952
8	Information they gave you about your medical exams?	3.26	0.890	0.803	0.645	0.950
9	Information you were given about your treatments?	3.42	0.860	0.809	0.654	0.950
10	Visits and consultations frequency?	3.32	0.882	0.767	0.588	0.952
11	The amount of time spent with you during the different visits and consultations?	3.26	0.957	0.760	0.578	0.952
During hospitalization, assessment of the nurses						
12	The way they have assessed your vital signs (temperature, blood pressure...)?	3.81	0.784	0.732	0.536	0.955
13	The way they have provided health care (medication administration, wound dressing...)	3.90	0.828	0.737	0.543	0.955
14	Attention they paid to your physical comfort?	3.93	0.812	0.843	0.711	0.952
15	Interest they have shown in you and in your case?	3.94	0.797	0.792	0.627	0.953
16	Comfort and support they gave you?	3.91	0.869	0.843	0.711	0.951
17	Human qualities (respect, sensibility, patience...)?	3.97	0.814	0.822	0.676	0.952
18	Information they gave you about your medical exams?	3.56	0.945	0.790	0.624	0.954
19	Information they gave you about the way you would have to perform self-treatment?	3.86	0.851	0.813	0.661	0.952
20	Information you were given about the treatments?	3.77	0.823	0.799	0.638	0.953
21	How fast were your calls answered?	3.74	0.923	0.789	0.623	0.953
22	The amount of time spent with you?	3.77	0.928	0.844	0.712	0.951
During hospitalization, assessment of the hospital organization and services						
23	Exchange of information among the health workers?	3.48	0.796	0.703	0.494	0.890
24	Kindness and support shown by technicians and assistive personnel?	3.70	0.851	0.575	0.331	0.899
25	Information provided when you were admitted to the hospital?	3.62	0.835	0.763	0.582	0.885
26	Information provided at the time of your discharge from the hospital?	3.67	0.769	0.682	0.465	0.892
27	Amount of time you had to wait to get the result of your medical exams?	3.27	0.919	0.713	0.508	0.889
28	How fast were your exams and treatments performed?	3.41	0.900	0.682	0.465	0.891
29	How easy was it to get to the hospital? (means of transport, parking lots...)	2.93	1.024	0.617	0.381	0.898
30	How easy was it to locate the different hospital services?	3.20	0.882	0.680	0.462	0.891
31	Environment in the different hospital spaces (cleanness, space, noise...)?	3.31	0.883	0.678	0.460	0.891
32	Overall, how would you classify the health care provided during your stay in the hospital?	3.25	0.819	0.642	0.524	0.960

Results

Satisfaction of women who had undergone a mastectomy with health care provided

Statistics regarding satisfaction show that the minimum rating given to doctors was 11.36 and the maximum was 100.00, which corresponds to a 59.46 (SD = 18.38) average rate, while nurses got a 15.91 minimum rating and a 100.00 maximum rating, which corresponds to a 70.80 (SD = 17.86) average rate. In the dimension "Organization", we can see that a minimum rating of 25.00 was assigned and the maximum was 100.00, corresponding to a 59.99 (± 16.42) average rate.

Globally, we can observe that a minimum 20.16 rating and a maximum 100.00 rating were assigned. The coefficient of variation reveals that there is a high statistical data dispersion as far as doctors are concerned and a moderate statistical data dispersion when nurses and organization are referred. The same dispersion, moderate, is evident when the overall dimension is referred (Table 3).

Ratings assigned to doctors, nurses and services organization according to the satisfaction with health care provided

From a total of 153 women who had undergone a mastectomy, 113 (73.81%) are satisfied with the health care they were provided as a whole and 40 of them (26.14%) confess they are unsatisfied. However, the differences we found between the three dimensions are not statistically significant. A deeper analysis of the results shows that a significant percentage of mastectomized women are unsatisfied with health care provided by the doctors. As far as the satisfaction with the nurses' performance is concerned, 40.01% of the women were reasonably satisfied. 37.9% of them told us that they were reasonably satisfied with the hospital organization and services.

Overall, women are reasonably satisfied (47.06) with health care provided (Table 4).

In the total sample, the results prove that the family network is a predictor factor of the satisfaction with health care provided by doctors (β = 0.163; P = .044) and the period of hospitalization predicts the satisfaction with the hospital organization and services (β = 0.171; P = .011). Both predictors explain in 3% the variability of women's satisfaction (Fig. 1).

Discussion

The woman who undergoes a mastectomy must be guided during the preoperative period and follow a rehabilitation programme right after surgery at different levels: physical, emotional, social and professional. Overcoming those difficulties can be minimized by nurses and by the other members of the health care team that follow the patient as long as they understand her drama.[14]

So, the act of providing health care must put together the technique, the science and the humanization aspects while

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Table 3 Statistics regarding the satisfaction of mastectomized women with health care

	n	Minimum	Maximum	Mean	Standard deviation	CV %	SK/error	K/error	KS
Doctor	153	11.36	100.00	59.46	18.38	30.91	1.16	0.47	0.01
Nurse	153	15.91	100.00	70.80	17.86	25.23	−2.12	0.58	0.00
Organization	153	25.00	100.00	59.99	16.42	27.38	1.17	0.37	0.00
Overall	153	20.16	100.00	63.64	14.92	23.44	0.62	2.14	0.00

Table 4 Level of (un) satisfaction with health care provided by nurses, doctors, organization and services

Satisfaction with health care	Not satisfied, n (%)	Satisfied, n (%)	χ^2	P	χ^2	P
Doctors	58 (37.9)	95 (62.09)				.062 (ns)
Nurses	39 (2.50)	114 (74.50)	5.444	.66 (ns)	7.322	
Organization	49 (32.0)	104 (67.97)				
Overall	40 (26.14)	113 (73.85)				
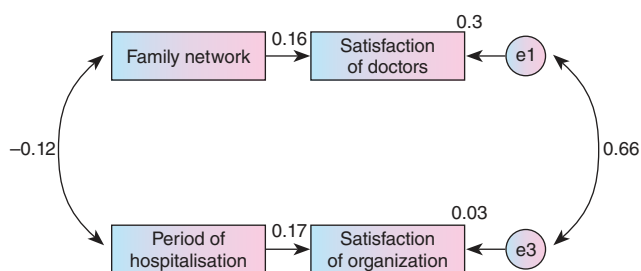
Figure 1 Predictors of women's satisfaction.

respecting those women's needs and level of understanding and getting them ready to perform self-care operations that will help them overcome any stressful obstacles that will generate fear.[5]

Consequently, the importance of satisfaction with health care is, without a doubt, one of the main discussion topics.

The study revealed that family network and the period of hospitalization were predictors of satisfaction and that the socio-demographic profile of mastectomized women was of a 55 year old married woman, coming from a rural

area, with low school level and low social support network. These results bring a challenge that health workers will have to face so they will be able to plan and to implement actions. Answers to this challenge will have to be organized, organized in a personalized way within the context of a cancer disease which is traumatic to women and to their families.[15]

So, the vital need to involve the family in the therapeutic process emerged as a guideline for health care practice. We have to consider the physical, emotional, social, professional and family aspects as key-points for guidance in the preoperative phase and for the rehabilitation of the woman who had undergone a mastectomy, while giving the due attention to the organization of services. Future research works will have to stress out the health benefits that come from the action of a multidisciplinary team who works with patients suffering from breast cancer, since they will have a fundamental role and will become more and more necessary to deal with a specific functional problem which includes physical, social, emotional, family and professional dimensions.

What we know about the theme

The results show that a significant percentage of women are unsatisfied, so we need to implement a structured plan of medical and nursing health care that will be directed to the rehabilitation and to the psychosocial adjustment of women who had gone through a mastectomy. This plan will have to include the monitoring of women's satisfaction so it can meet their needs.

What we get out the study

Globally, women show a reasonable satisfaction with the health care they were provided, pointing out that the satisfaction they feel with the nursing care is higher than the one they feel with health care provided by the doctors. They also show a reasonable satisfaction with the hospital organization and services.

Acknowledgments

Conflicts of interest

The authors declare that there are no conflicts of interest.

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